

Storm driven maritime dispersal of prickly pear cacti (*Opuntia* species)

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Areas in which southeastern US *Opuntia* species are particularly abundant include the barrier islands along the Gulf Coasts of Mississippi, Alabama, and Florida. Sandy soils in these coastal habitats provide xeric, low competition habitats for *Opuntia*, but also are prone to frequent tropical storms accompanied by strong winds and wave action. Because of the ease with which vegetative fragments of *Opuntia* regenerate, it is likely that those storms may dislodge cladodes that could serve as dispersal units in long-distance maritime transport and establishment of *Opuntia*. Plant surveys during July 2004 and January 2006 on the Greenwood Island peninsula in Jackson County, Mississippi revealed establishment of new *Opuntia humifusa* and *O. stricta* along the seaward edge of Greenwood Island correlated with the passage of Hurricane Katrina through the Mississippi Gulf Coast area. Meteorological data indicated that a prolonged period of strong winds (40 to 47 m/s) and a 5.2-m storm surge passed through the Greenwood Island area on 27 August 2005. Data on maximum wind speeds, storm surge and wave height, and wind direction supported the hypothesis that Hurricane Katrina could have transported broken cactus from nearby barrier islands to this mainland region. On the islands themselves, entire *O. humifusa* plants were observed to have been dislodged from the soil and deposited elsewhere on the islands, including plants that were observed growing in the canopies of trees. These results suggest that storms and maritime transport of *Opuntia* could contribute to long-distance dispersal of these plants as well as potential long-distance dispersal of invertebrate herbivores, such as *Cactoblastis cactorum* that may inhabit cladodes at the time of transport. Such information should be considered in future efforts at managing spread of *Cactoblastis* in the Gulf of Mexico region.